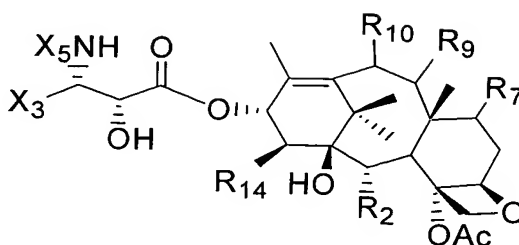


Claims

1. A taxane having the formula:



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wherein

- 10  $R_2$  is acyloxy;  
 $R_7$  is hydroxy;  
 $R_9$  is keto, hydroxy, or acyloxy;  
 $R_{10}$  is carbamoyloxy;  
 $R_{14}$  is hydrido or hydroxy;  
 $X_3$  is substituted or unsubstituted alkyl, alkenyl, alkynyl, phenyl or  
heterocyclo, wherein alkyl comprises at least two carbon atoms;  
 $X_5$  is  $-\text{COX}_{10}$ ,  $-\text{COOX}_{10}$ , or  $-\text{CONHX}_{10}$ ;  
15  $X_{10}$  is hydrocarbyl, substituted hydrocarbyl, or heterocyclo; and  
Ac is acetyl.

2. The taxane of claim 1 wherein  $R_{10}$  is  $R_{10a}R_{10b}\text{NCOO}-$  and  $R_{10a}$  and  $R_{10b}$  are independently hydrogen, hydrocarbyl, substituted hydrocarbyl, or heterocyclo.

3. The taxane of claim 2 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $\text{C}_1 - \text{C}_8$  alkyl,  $\text{C}_2 - \text{C}_8$  alkenyl, or  $\text{C}_2 - \text{C}_8$  alkynyl.

4. The taxane of claim 2 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $\text{C}_1 - \text{C}_8$  alkyl,  $\text{C}_2 - \text{C}_8$  alkenyl, or  $\text{C}_2 - \text{C}_8$  alkynyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is substituted or unsubstituted  $\text{C}_1 - \text{C}_8$  alkyl,  $\text{C}_2 - \text{C}_8$  alkenyl, or  $\text{C}_2 - \text{C}_8$  alkynyl.

5. The taxane of claim 2 wherein  $X_5$  is  $-\text{COX}_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  wherein  $X_{10}$  is t-butyl.

6. The taxane of claim 2 wherein  $R_{14}$  is hydrido.

7. The taxane of claim 6 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
8. The taxane of claim 6 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
9. The taxane of claim 6 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.
10. The taxane of claim 2 wherein  $R_2$  is benzoyloxy.
11. The taxane of claim 10 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
12. The taxane of claim 10 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
13. The taxane of claim 10 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.
14. The taxane of claim 2 wherein  $R_{14}$  is hydrido and  $R_9$  is keto.
15. The taxane of claim 14 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
16. The taxane of claim 14 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

17. The taxane of claim 14 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is t-butyl.
18. The taxane of claim 2 wherein  $R_2$  is benzoyloxy and  $R_9$  is keto.
19. The taxane of claim 18 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
20. The taxane of claim 18 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
21. The taxane of claim 18 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is t-butyl.
22. The taxane of claim 2 wherein  $R_{14}$  is hydrido and  $R_2$  is benzoyloxy.
23. The taxane of claim 22 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
24. The taxane of claim 22 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
25. The taxane of claim 22 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is t-butyl.
26. The taxane of claim 2 wherein  $R_{14}$  is hydrido,  $R_9$  is keto, and  $R_2$  is benzoyloxy.

27. The taxane of claim 26 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
28. The taxane of claim 26 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
29. The taxane of claim 26 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.
30. The taxane of claim 1 wherein  $R_{10}$  is  $R_{10a}R_{10b}NCOO-$ , one of  $R_{10a}$  and  $R_{10b}$  is hydrogen and the other is hydrocarbyl, substituted hydrocarbyl, or heterocyclo.
31. The taxane of claim 30 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
32. The taxane of claim 30 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
33. The taxane of claim 30 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.
34. The taxane of claim 30 wherein  $R_{14}$  is hydrido.
35. The taxane of claim 34 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
36. The taxane of claim 34 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-

pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

37. The taxane of claim 34 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is phenyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is t-butyl.

38. The taxane of claim 30 wherein R<sub>2</sub> is benzoyloxy.

39. The taxane of claim 38 wherein X<sub>3</sub> is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

40. The taxane of claim 38 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

41. The taxane of claim 38 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is phenyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is t-butyl.

42. The taxane of claim 30 wherein R<sub>14</sub> is hydrido and R<sub>9</sub> is keto.

43. The taxane of claim 42 wherein X<sub>3</sub> is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

44. The taxane of claim 42 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

45. The taxane of claim 42 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is phenyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is t-butyl.

46. The taxane of claim 30 wherein R<sub>2</sub> is benzoyloxy and R<sub>9</sub> is keto.

47. The taxane of claim 46 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
48. The taxane of claim 46 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
49. The taxane of claim 46 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.
50. The taxane of claim 30 wherein  $R_{14}$  is hydrido and  $R_2$  is benzoyloxy.
51. The taxane of claim 50 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
52. The taxane of claim 50 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
53. The taxane of claim 50 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.
54. The taxane of claim 30 wherein  $R_{14}$  is hydrido,  $R_9$  is keto, and  $R_2$  is benzoyloxy.
55. The taxane of claim 54 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
56. The taxane of claim 54 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-

pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

57. The taxane of claim 54 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is phenyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is t-butyl.

58. The taxane of claim 1 wherein R<sub>10</sub> is R<sub>10a</sub>R<sub>10b</sub>NCOO-, one of R<sub>10a</sub> and R<sub>10b</sub> is hydrogen and the other is substituted or unsubstituted C<sub>1</sub> - C<sub>8</sub> alkyl, phenyl, furyl, thienyl or pyridyl.

59. The taxane of claim 58 wherein X<sub>3</sub> is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

60. The taxane of claim 58 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

61. The taxane of claim 58 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is phenyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is t-butyl.

62. The taxane of claim 58 wherein R<sub>14</sub> is hydrido.

63. The taxane of claim 62 wherein X<sub>3</sub> is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

64. The taxane of claim 62 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

65. The taxane of claim 62 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is phenyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is t-butyl.

66. The taxane of claim 58 wherein  $R_2$  is benzoyloxy.
67. The taxane of claim 66 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
68. The taxane of claim 66 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
69. The taxane of claim 66 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.
70. The taxane of claim 58 wherein  $R_{14}$  is hydrido and  $R_9$  is keto.
71. The taxane of claim 70 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
72. The taxane of claim 70 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
73. The taxane of claim 70 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.
74. The taxane of claim 58 wherein  $R_2$  is benzoyloxy and  $R_9$  is keto.
75. The taxane of claim 74 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
76. The taxane of claim 74 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-



pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

77. The taxane of claim 74 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is phenyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is t-butyl.

78. The taxane of claim 58 wherein R<sub>14</sub> is hydrido and R<sub>2</sub> is benzoyloxy.

79. The taxane of claim 78 wherein X<sub>3</sub> is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

80. The taxane of claim 78 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

81. The taxane of claim 78 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is phenyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is t-butyl.

82. The taxane of claim 58 wherein R<sub>14</sub> is hydrido, R<sub>9</sub> is keto, and R<sub>2</sub> is benzoyloxy.

83. The taxane of claim 82 wherein X<sub>3</sub> is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

84. The taxane of claim 82 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

85. The taxane of claim 82 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is phenyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is t-butyl.

86. The taxane of claim 82 wherein X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is t-butyl.

87. The taxane of claim 86 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

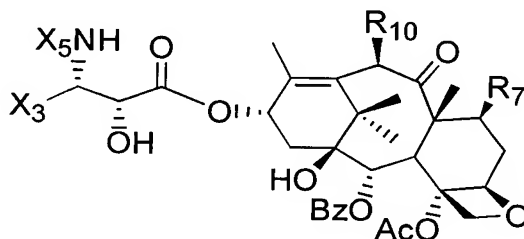
88. The taxane of claim 86 wherein  $X_3$  is furyl or thienyl.

89. The taxane of claim 86 wherein  $X_3$  is 2-furyl.

90. The taxane of claim 86 wherein  $X_3$  is 2-thienyl.

91. The taxane of claim 86 wherein  $X_3$  is cycloalkyl.

92. A taxane having the formula:



$R_7$  is hydroxy;

$R_{10}$  is carbamoyloxy;

$X_3$  is substituted or unsubstituted alkyl, alkenyl, alkynyl, or heterocyclo,  
5 wherein alkyl comprises at least two carbon atoms;

$X_5$  is  $-COX_{10}$ ,  $-COOX_{10}$ , or  $-CONHX_{10}$ ;

$X_{10}$  is hydrocarbyl, substituted hydrocarbyl, or heterocyclo,

Ac is acetyl, and

Bz is benzoyl.

93. The taxane of claim 92 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

94. The taxane of claim 93 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-

pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

95. The taxane of claim 93 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is phenyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is t-butyl.

96. The taxane of claim 92 wherein X<sub>3</sub> is furyl or thienyl.

97. The taxane of claim 96 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

98. The taxane of claim 96 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is phenyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is t-butyl.

99. The taxane of claim 93 wherein X<sub>3</sub> is cycloalkyl.

100. The taxane of claim 99 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

101. The taxane of claim 99 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is phenyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is t-butyl.

102. The taxane of claim 93 wherein X<sub>3</sub> is isobutenyl.

103. The taxane of claim 102 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

104. The taxane of claim 102 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is phenyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is t-butyl.

105. The taxane of claim 92 wherein  $R_{10}$  is  $R_{10a}R_{10b}NCOO-$ , one of  $R_{10a}$  and  $R_{10b}$  is hydrogen and the other is  $C_1 - C_8$  alkyl, phenyl or heterocyclo.

106. The taxane of claim 105 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

107. The taxane of claim 106 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

108. The taxane of claim 106 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

109. The taxane of claim 105 wherein  $X_3$  is furyl or thienyl.

110. The taxane of claim 109 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

111. The taxane of claim 109 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

112. The taxane of claim 105 wherein  $X_3$  is cycloalkyl.

113. The taxane of claim 112 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

114. The taxane of claim 112 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

115. The taxane of claim 105 wherein  $X_3$  is isobutenyl.

116. The taxane of claim 115 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $\text{C}_1 - \text{C}_8$  alkyl,  $\text{C}_2 - \text{C}_8$  alkenyl, or  $\text{C}_2 - \text{C}_8$  alkynyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is substituted or unsubstituted  $\text{C}_1 - \text{C}_8$  alkyl,  $\text{C}_2 - \text{C}_8$  alkenyl, or  $\text{C}_2 - \text{C}_8$  alkynyl.

117. The taxane of claim 115 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is t-butyl.

118. The taxane of claim 92 wherein  $X_3$  is furyl or thienyl,  $R_{10}$  is  $R_{10a}R_{10b}\text{NCOO}-$ , one of  $R_{10a}$  and  $R_{10b}$  is hydrogen, the other of  $R_{10a}$  and  $R_{10b}$  is  $\text{C}_1 - \text{C}_8$  alkyl, phenyl, or heterocyclo, and  $X_5$  is  $-\text{COX}_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  wherein  $X_{10}$  is t-butyl.

119. The taxane of claim 92 wherein  $X_3$  is substituted or unsubstituted furyl,  $R_{10}$  is  $R_{10a}R_{10b}\text{NCOO}-$ , one of  $R_{10a}$  and  $R_{10b}$  is hydrogen, the other of  $R_{10a}$  and  $R_{10b}$  is methyl, ethyl, or straight, branched or cyclic propyl, and  $X_5$  is  $-\text{COX}_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  wherein  $X_{10}$  is t-butyl.

120. The taxane of claim 92 wherein  $X_3$  is substituted or unsubstituted furyl,  $R_{10}$  is  $R_{10a}R_{10b}\text{NCOO}-$ , one of  $R_{10a}$  and  $R_{10b}$  is hydrogen, the other of  $R_{10a}$  and  $R_{10b}$  is substituted or unsubstituted phenyl or heterocyclo, and  $X_5$  is  $-\text{COX}_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  wherein  $X_{10}$  is t-butyl.

121. The taxane of claim 92 wherein  $X_3$  is substituted or unsubstituted thienyl, one of  $R_{10a}$  and  $R_{10b}$  is hydrogen, the other of  $R_{10a}$  and  $R_{10b}$  is methyl, ethyl, or straight, branched or cyclic propyl, and  $X_5$  is  $-\text{COX}_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  wherein  $X_{10}$  is t-butyl.

122. The taxane of claim 92 wherein  $X_3$  is substituted or unsubstituted thienyl,  $R_{10}$  is  $R_{10a}R_{10b}\text{NCOO}-$ , one of  $R_{10a}$  and  $R_{10b}$  is hydrogen, the other of  $R_{10a}$  and  $R_{10b}$  is substituted or unsubstituted phenyl or heterocyclo, and  $X_5$  is  $-\text{COX}_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  wherein  $X_{10}$  is t-butyl.

123. The taxane of claim 92 wherein  $X_3$  is substituted or unsubstituted phenyl,  $R_{10}$  is  $R_{10a}R_{10b}\text{NCOO}-$ , one of  $R_{10a}$  and  $R_{10b}$  is hydrogen, the other of  $R_{10a}$

and  $R_{10b}$  is methyl, ethyl, or straight, branched or cyclic propyl, and  $X_5$  is  $-\text{COX}_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  wherein  $X_{10}$  is t-butyl.

124. The taxane of claim 92 wherein  $X_3$  is substituted or unsubstituted phenyl,  $R_{10}$  is  $R_{10a}R_{10b}\text{NCOO}-$ , one of  $R_{10a}$  and  $R_{10b}$  is hydrogen, the other of  $R_{10a}$  and  $R_{10b}$  is substituted or unsubstituted phenyl or heterocyclo, and  $X_5$  is  $-\text{COX}_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  wherein  $X_{10}$  is t-butyl.

125. The taxane of claim 92 wherein  $X_3$  is isobutenyl, one of  $R_{10a}$  and  $R_{10b}$  is hydrogen,  $R_{10}$  is  $R_{10a}R_{10b}\text{NCOO}-$ , the other of  $R_{10a}$  and  $R_{10b}$  is methyl, ethyl, or straight, branched or cyclic propyl, and  $X_5$  is  $-\text{COX}_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  wherein  $X_{10}$  is t-butyl.

126. The taxane of claim 92 wherein  $X_3$  is alkyl,  $R_{10}$  is  $R_{10a}R_{10b}\text{NCOO}-$ , one of  $R_{10a}$  and  $R_{10b}$  is hydrogen, the other of  $R_{10a}$  and  $R_{10b}$  is methyl, ethyl, or straight, branched or cyclic propyl, and  $X_5$  is  $-\text{COX}_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  wherein  $X_{10}$  is t-butyl.

127. The taxane of claim 92 wherein  $X_3$  is 2-furyl or 2-thienyl,  $R_{10}$  is  $R_{10a}R_{10b}\text{NCOO}-$ , one of  $R_{10a}$  and  $R_{10b}$  is hydrogen, the other of  $R_{10a}$  and  $R_{10b}$  is methyl, ethyl, or straight, branched or cyclic propyl,  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is t-butyl.

128. The taxane of claim 92 wherein  $X_3$  is 2-furyl or 2-thienyl,  $R_{10}$  is  $R_{10a}R_{10b}\text{NCOO}-$ , one of  $R_{10a}$  and  $R_{10b}$  is hydrogen, the other of  $R_{10a}$  and  $R_{10b}$  is substituted or unsubstituted phenyl or heterocyclo,  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is t-butyl.

129. The taxane of claim 92 wherein  $X_3$  is cycloalkyl,  $R_{10}$  is  $R_{10a}R_{10b}\text{NCOO}-$ , one of  $R_{10a}$  and  $R_{10b}$  is hydrogen, the other of  $R_{10a}$  and  $R_{10b}$  is substituted or unsubstituted phenyl or heterocyclo,  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is t-butyl.

130. A pharmaceutical composition comprising the taxane of claim 1 and at least one pharmaceutically acceptable carrier.

131. The pharmaceutical composition of claim 130 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

132. The pharmaceutical composition of claim 131 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  
5  $C_2 - C_8$  alkynyl.

133. The pharmaceutical composition of claim 131 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

134. The pharmaceutical composition of claim 130 wherein  $R_{10}$  is  $R_{10a}R_{10b}NCOO-$ , one of  $R_{10a}$  and  $R_{10b}$  is hydrogen, the other of  $R_{10a}$  and  $R_{10b}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl, phenyl or heterocyclo.

135. The pharmaceutical composition of claim 134 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

136. The pharmaceutical composition of claim 135 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  
5  $C_2 - C_8$  alkynyl.

137. The pharmaceutical composition of claim 135 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

138. The pharmaceutical composition of claim 131 wherein  $X_3$  is furyl or thienyl,  $R_{10}$  is  $R_{10a}R_{10b}NCOO-$ , one of  $R_{10a}$  and  $R_{10b}$  is hydrogen, the other of  $R_{10a}$  and  $R_{10b}$  is  $C_1 - C_8$  alkyl, phenyl or heterocyclo, and  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

139. The pharmaceutical composition of claim 131 wherein  $X_3$  is cycloalkyl,  $R_{10}$  is  $R_{10a}R_{10b}NCOO-$ , one of  $R_{10a}$  and  $R_{10b}$  is hydrogen, the other of  $R_{10a}$  and  $R_{10b}$  is  $C_1 - C_8$  alkyl, phenyl or heterocyclo, and  $X_5$  is  $-COX_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  wherein  $X_{10}$  is t-butyl.

140. The pharmaceutical composition of claim 131 wherein  $X_3$  is substituted or unsubstituted phenyl,  $R_{10}$  is  $R_{10a}R_{10b}NCOO-$ , one of  $R_{10a}$  and  $R_{10b}$  is hydrogen, the other of  $R_{10a}$  and  $R_{10b}$  is  $C_1 - C_8$  alkyl, phenyl or heterocyclo, and  $X_5$  is  $-COX_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  wherein  $X_{10}$  is t-butyl.

141. The pharmaceutical composition of claim 131 wherein  $X_3$  is isobutenyl,  $R_{10}$  is  $R_{10a}R_{10b}NCOO-$ , one of  $R_{10a}$  and  $R_{10b}$  is hydrogen, the other of  $R_{10a}$  and  $R_{10b}$  is  $C_1 - C_8$  alkyl, phenyl or heterocyclo, and  $X_5$  is  $-COX_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$ .

142. The pharmaceutical composition of claim 131 wherein  $X_3$  is alkyl,  $R_{10}$  is  $R_{10a}R_{10b}NCOO-$ , one of  $R_{10a}$  and  $R_{10b}$  is hydrogen, the other of  $R_{10a}$  and  $R_{10b}$  is  $C_1 - C_8$  alkyl, phenyl or heterocyclo, and  $X_5$  is  $-COX_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  wherein  $X_{10}$  is t-butyl.

143. A pharmaceutical composition comprising the taxane of claim 92 and at least one pharmaceutically acceptable carrier.

144. A pharmaceutical composition comprising the taxane of claim 96 and at least one pharmaceutically acceptable carrier.

145. A composition for oral administration comprising the taxane of claim 1 and at least one pharmaceutically acceptable carrier.

146. The composition of claim 145 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

147. The composition of claim 146 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is



-COOX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

148. The composition of claim 146 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is phenyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is t-butyl.

149. The composition of claim 145 wherein R<sub>10</sub> is R<sub>10a</sub>R<sub>10b</sub>NCOO-, one of R<sub>10a</sub> and R<sub>10b</sub> is hydrogen, the other of R<sub>10a</sub> and R<sub>10b</sub> is substituted or unsubstituted C<sub>1</sub> - C<sub>8</sub> alkyl, phenyl or heterocyclo.

150. The composition of claim 149 wherein X<sub>3</sub> is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

151. The composition of claim 150 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

152. The composition of claim 150 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is phenyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is t-butyl.

153. A composition for oral administration comprising the taxane of claim 92 and at least one pharmaceutically acceptable carrier.

154. A composition for oral administration comprising the taxane of claim 96 and at least one pharmaceutically acceptable carrier.

155. A method of inhibiting tumor growth in a mammal, said method comprising orally administering a therapeutically effective amount of a pharmaceutical composition comprising the taxane of claim 1 and at least one pharmaceutically acceptable carrier.

156. The method of claim 155 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
157. The method of claim 156 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
158. The method of claim 156 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.
159. The method of claim 155 wherein  $R_{10}$  is  $R_{10a}R_{10b}NCOO-$ , one of  $R_{10a}$  and  $R_{10b}$  is hydrogen, the other of  $R_{10a}$  and  $R_{10b}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl, phenyl or heterocyclo.
160. The method of claim 159 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
161. The method of claim 160 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
162. The method of claim 160 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.
163. A method of inhibiting tumor growth in a mammal, said method comprising orally administering a therapeutically effective amount of a pharmaceutical composition comprising the taxane of claim 92 and at least one pharmaceutically acceptable carrier.

164. A method of inhibiting tumor growth in a mammal, said method comprising orally administering a therapeutically effective amount of a pharmaceutical composition comprising the taxane of claim 96 and at least one pharmaceutically acceptable carrier.